

NAS NORTH ISLAND - NAVY REGION SOUTHWEST NAVY ENVIRONMENTAL LEADERSHIP PROGRAM

CONSERVATION

RESOURCE EFFICIENCY MANAGEMENT (REM) PROGRAM

LEAD ACTIVITY

Public Works Center San Diego - Regional Energy Program Office (REPO)
Navy Region Southwest (NRSW)

STATUS

Active

MISSION

Promote energy efficiency and conservation initiatives to save energy, reduce costs, and reduce emissions associated with facility energy use.

REQUIREMENT

The Clean Air Act, the Energy Policy Act of 1992, and Executive Order 13123 mandate the reduction of energy use at federal facilities. The REM program is an initiative to assist NRSW in proactively meeting energy reduction goals.

DESCRIPTION

In October 1999, NELP partnered the PUC Utility Department to initiate a Resource Efficiency Management (REM) program in the NRSW Metro Area. Through the REM program, a full-time, dedicated energy manager was provided to (1) identify and implement energy and water conservation and cost-saving opportunities and (2) demonstrate the environmental benefits of a dedicated energy management program. The program was further intended to become self-sustaining through energy cost savings and utility incentives and that offer returns far above program costs.

The REM program has proven very effective in reducing Navy utility costs and getting projects employing new energy efficient technology and renewable energy. Building on immediate results of the REM Managers in the Metro area, the program has steadily grown to where as of January 2001 the equivalent of eight full-time REM Managers are working on seven NRSW installations. The NRSW REM Manager program has demonstrated an approximately 30:1 return on investment; that is, the energy cost savings and financial incentives directly attributable to REMs is 30 times the program's cost. In January 2001, John Thomas, PWC Supervisory Electrical Engineer said, "The investment we made in the REM program has paid for itself many times over. It is definitely one of the best investments we've ever made."

To date the REM program has focused on (1) identifying and implementing easily attained cost saving measures in energy, water, and resource conservation; (2)

assisting the Navy in immediate response in orders to reduce electrical demand in the face of impending electric utility curtailments with rolling blackouts; (3) evaluate technical and economic feasibility of energy and water projects using Navy standard practices; (4) identifying and procuring external financial assistance for Navy energy activities and projects; (5) assist in the development and management of energy and water projects; and (6) support the Regional Energy Program Office (REPO) with energy awareness programs.

Projects with which REM Managers have assisted in evaluating and implementing include; lighting retrofits, HVAC upgrades, office efficiency measures, photovoltaic projects, microturbine projects, metering and billing analysis, energy awareness and training programs, submittals for grants, rebates, and other financial incentives and award recommendations.

BENEFITS

- Provides cost-effective and long-term energy and water savings and significant return of investments.
- Reduces Navy operational costs of providing energy and water and assists in meeting federally mandated energy and water conservation requirements.
- Procures external financial incentives, grants and rebates for energy projects.
- Assists in assessing and implementing innovative and renewable energy projects.
- Energy conservation measures benefit California and the San Diego region in particular, in minimizing demand reduction.
- Demonstrates an innovative and replicable method of optimizing business practices to reduce utility costs and enhance operations at naval facilities

ACCOMPLISHMENTS / CURRENT STATUS

Date	Activity
JUN 1999	NRSW baseline energy assessment report completed
JAN 2000	3-month REM demonstration completed
FEB 2000	Full-time REM manager hired
JUL 2000	Second full-time REM manager hired
FEB 2001	REM Managers #3 & 4 hired
MAR 2001	REM Program approach initiated at US Postal Service
MAY 2001	REM Manager added for Marine Corp Base Camp Pendelton
SEP 2001	REM Manager added at NRSW Bases at El Centro and Seal Beach, CA and Fallon, NV.
OCT 2001	NRSW wins Presidential Award for Leadership in Energy Management.
DEC 2001	NRSW Metro bases have reduced peak demand loads and daily energy use in on-shore building by an average of 90 million kWh worth approximately \$13.5 million in avoided energy costs.
2001	NRSW wins San Diego Regional Energy Leadership Award
2001	NRSW wins Federal Energy and Water Management Award

FUTURE PLAN OF ACTION & MILESTONES

Date	Activity
Ongoing	Continue support of NRSW energy programs and initiatives

COLLABORATION / TECHNOLOGY TRANSFER

The NRSW REM Manager program was based on the REM program developed by SWDIV and Washington State University in the Pacific Northwest. Based on the success of the NRSW REM Manager program, it has been extended to include eight full-time REM Managers on seven NRSW Bases. Additionally, the program has been expanded to three Marine Corps bases and the Navy Medical Center. The program is demonstrating excellent collaboration between all the Navy and Marine Corps bases involved in the program. The REM Manager program has also been successfully transferred to the US Postal Service. This innovative program could be readily and widely transferred to other Military facilities and additional federal agencies.

BIBLIOGRAPHY

- Baseline Energy Assessment.
- REM Demonstration Report.

RELATED GOVERNMENT INTERNET SITES

[Federal Energy Management Program](#)

[Washington State University Energy Program](#)

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